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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

12 ARCSOFT INC.,

13 Plaintiff,

14 vs.

15 PAUL FRIEDMAN,

16 Defendant.

CASE NO. C07-03512 SC

**DECLARATION OF MICHAEL
BOGESS**

1 I, Michael Boggess, declare:

2 1. I am employed as an IT Manager by AON Consulting, the third party forensic
 3 consulting firm retained by ArcSoft in the above-captioned lawsuit.

4 2. In my work at AON Consulting, I provide computer forensic expertise in the
 5 acquisition, preservation, and examination of digital evidence. I have over thirty years of
 6 experience in law enforcement investigations, military intelligence, computer forensics and
 7 corporate security. I have participated in and/or supervised the forensic examination of more than
 8 250 computers. I have attended numerous computer forensic training courses, including courses
 9 at SEARCH, The National Consortium for Justice Information and Statistics in Northern
 10 California, New Technologies, Inc. and Santa Clara County District Attorney's High Tech Unit. I
 11 have also received forensics training at Guidance Software in the use of Encase, a state of the art
 12 forensic software application frequently used by law enforcement. I continue to receive training
 13 through the Silicon Valley chapter of the High Tech Crime Investigators Association.

14 3. I have received and read a copy of the Order Granting *Ex Parte* Application for
 15 Temporary Restraining Order, Evidence Preservation Order, and Order to Show Cause Regarding
 16 Issuance of Preliminary Injunction that the Court executed on July 6, 2007 ("Order").

17 July 9, 2007

18 **Forensic Imaging Of External Hard Drive And Flash Drives**

19 4. At 6:00 p.m. on July 9, 2007, I was present at the offices of Paul Hastings,
 20 ArcSoft's counsel of record, for a meeting that I was informed would involve Paul Friedman
 21 ("Friedman"). Although it was my understanding that the meeting would begin at 6:00 p.m.,
 22 Friedman arrived at approximately 6:40 p.m.

23 5. When Friedman arrived, he was asked whether he had any items that he brought to
 24 produce for imaging pursuant to the Order the Court issued in the above-captioned lawsuit
 25 ("Order"). At this point, Friedman stated that he had some items with him, but that he wanted to
 26 produce them in sealed fashion, at which point he sealed a Federal Express envelope containing
 27 the items he brought with him. After it was explained to him that, pursuant to the Court Order, he
 28 was required to provide these items for imaging, which could not be done if they remained sealed,

1 I opened the Federal Express envelope in his presence, and removed one Seagate FreeAgent
2 external hard drive bearing the Serial Number 5LY43TZ9, which he stated could hold
3 approximately 80 gigabytes of data ("External Hard Drive"), one silver-colored flash drive with
4 an unknown brand name bearing Electronic Serial Number 0212090000001, one Symbian flash
5 drive that did not contain an Electronic Serial Number, and one CEFC flash drive bearing the
6 label "The Economist," with an Electronic Serial Number 7AD30601 (collectively, the "Flash
7 Drives").

8 6. At this time, Friedman also produced a document that he brought to the meeting
9 with him. I observed him sign this document, a true and correct copy of which is attached hereto
10 as Exhibit A.

11 7. Upon receiving the External Hard Drive and Flash Drives, I photocopied the
12 external features of these devices, so that the Serial Number and physical appearance of the
13 External Hard Drive and Flash Drives could be recorded. Attached hereto as Exhibit B are true
14 and correct copies of the photographs I made.

15 8. I then proceeded to forensically image the External Hard Drive and Flash Drives
16 as called for by the Order. I accomplished this using the EnCase computer program, which
17 enables me to create a forensic image on a byte-by-byte basis of the subject devices without
18 altering the devices or their content in any way. In addition, I used a software write-block
19 program to prevent any data from being modified on the drives. After completing the process of
20 creating a forensic image of the External Hard Drive and Flash Drives, I returned each device to
21 Friedman.

22 9. After I created the forensic image of these devices, during a cursory glance the
23 EnCase image of the External Hard Drive, I noticed that numerous files contained on that device
24 had a "Last Access Date" of July 8, 2007, which I am informed is two days after the Court
25 entered its Order. As its name suggests, the Last Access Date of a file indicates the last time a
26 user accessed the file. Based on the frequency with which the Last Access Date was marked as
27 July 8, 2007, this indicated to me that certain files on the External Hard Drive had either been
28

1 placed onto that device on July 8, 2007, or were accessed on this date after already having been
2 placed onto the device.

3 10. Throughout the time that I was creating forensic images of the External Hard
4 Drive and Flash Drives, Friedman asked me multiple complex questions, one after another, to the
5 point that I began to believe that he was attempting to purposefully distract me in the hopes of
6 delaying the imaging process. This caused the process of copying the images to take longer than
7 it otherwise would have taken.

8 Statements By Friedman During The July 9, 2007 Meeting

9 11. As I was starting the process of forensically imaging the External Hard Drive and
10 Flash Drives, Friedman then stated that he wanted to do whatever the Court required him to do
11 and that he was present at the meeting in order to do that. However, when it was suggested that
12 those in attendance at the meeting read through the Court Order together so that Friedman could
13 confirm whether he had complied with each section thereof, Friedman asked whether he was
14 required to engage in this task. After being told that he was required to comply with the terms of
15 the Order, and that the exercise was intended to enable him to confirm that he had done so,
16 Friedman stated he "only want[s] to give what [he is] legally required to give" and that he "will
17 not answer any questions [he is] not obligated to answer."

18 12. Thereafter, Paragraph One of the Order (page 2, lines 11-14) (prohibiting
19 Friedman from accessing, using, or disclosing any ArcSoft information) was read to Friedman, at
20 which point Friedman was asked whether he believed he had complied with it. Friedman did not
21 respond to this question. Nor did Friedman respond when he was asked whether he believed he
22 had complied with Paragraph Two of the Order (page 2, lines 15-18) (requiring the return of all
23 ArcSoft property), although he later stated that he believed he had returned all ArcSoft property
24 and that he did not maintain any copies of any ArcSoft data in any form, other than electronic
25 copies which may exist in his personal email account.

26 13. When asked whether he believed he had complied with Paragraph Three of the
27 Order (page 2, lines 19-23, which requires Friedman to "identify in a written statement under
28 penalty of perjury each and every file and piece of electronic data...he accessed, removed, and/or

1 copied from the ArcSoft laptop he retained following the termination of his employment”),
2 Friedman stated that he did not give the list contemplated by this Paragraph because he was
3 producing the external hard drive during this meeting, and that a file directory generated from the
4 hard drive would serve as a complete list of all data responsive to Paragraph Three.

5 14. When asked whether he believed he had complied with Paragraph Four of the
6 Order (page 2, lines 24-28, which requires Friedman to provide information regarding the wiping
7 program he used on his ArcSoft-issued laptop, Friedman stated that he believed he had, that he
8 had not used a wiping program, and that he “do[es] not even know what a wiping program is.”
9 This surprised me, since I am informed that Friedman has a degree in Computer Science.
10 Friedman also stated that he did not do anything to delete any data from the ArcSoft laptop other
11 than to move files to the “Recycle Bin” of the laptop and then erase the contents of the “Recycle
12 Bin,” which Friedman stated contained items from his “personal” folder and likely also contained
13 ArcSoft data.

14 15. When asked whether he believed he had complied with Paragraph Five of the
15 Order (page 3, lines 1-9, which requires Friedman to identify all Electronic Storage Devices (as
16 that term is defined in the Order) (“ESDs”) that has been in his possession, custody, or control or
17 to which he has had access since January 1, 2007), Friedman stated he believed he had, since he
18 was producing at this meeting all devices which, according to Friedman, contained ArcSoft data.
19 When asked what part of the Order made him believe that he was only required to bring devices
20 containing ArcSoft data (as opposed to all ESDs in his possession, custody, or control or to which
21 he has had access), Friedman reviewed the Order and then stated that he could not locate any such
22 provision.

23 16. Thereafter, Friedman proceeded to list additional electronic devices that he stated
24 could be responsive to Paragraph Five of the Order (calling for the identification of all ESDs).
25 Friedman listed several devices, including the memory card in his sons’ video game systems, the
26 memory card in his wife’s camera, computer printers, DVDs (including a copy of the movie
27 “Finding Nemo” which purportedly belongs to his son), “every CD in [his] house,” old desktop
28 computers that had been in sitting in his basement for an unidentified period of time, iPods,

1 cellular telephones, a printer he used at a Hyatt Hotel in Shanghai, and more. Based on
2 Friedman's listing of these items, many of which could not be configured to store data (such as a
3 DVD of the movie "Finding Nemo" he bought for his son, which has already been filled with data
4 and which contains anti-pirating software which prevents any further data from being copied from
5 or to the DVD), it appeared to me that Friedman did not take his obligation to identify all ESDs
6 seriously. In other words, in my expert opinion, nobody with a Computer Science degree could
7 credibly interpret the Court's Order in the context of a case like this to require him to produce for
8 imaging every DVD of movies in his house.

9 17. Friedman also stated that he and his family possessed three laptop computers (one
10 which Friedman identified as the "family laptop," a second laptop which he stated belongs to one
11 of his sons and allegedly does not boot up properly, and a third, a Hewlett Packard laptop
12 computer, which Friedman stated belonged to another son and which he claimed had a power
13 problem). Friedman later stated he shipped the HP computer to Hewlett Packard on Saturday,
14 July 7, 2007, allegedly so that HP could fix the power problem.

15 18. After reciting them verbally, Friedman wrote the items down on a piece of paper, a
16 true and correct copy of which is attached hereto as Exhibit C. Friedman then agreed to bring all
17 ESDs that he identified (and which were in his current possession) to ArcSoft's counsel at 7:00
18 p.m. the following day, Tuesday July 10, 2007, for forensic imaging by me.

19 19. Thereafter, Friedman stated that he believed he was in full compliance with
20 Paragraph Six of the Order (page 3, lines 10-15, requiring him to identify all persons – including
21 himself – who have accessed ArcSoft data), and the Evidence Preservation portion of the Court's
22 Order.

23 20. Some time after going through the Court's Order, and while the External Hard
24 Drive and Flash Drives were still in the process of being forensically imaged, Friedman explained
25 certain portions of the statement he produced during our meeting (Exhibit A hereto). Friedman
26 first explained what he meant by his statement "I backed up personal files to the [External Hard
27 Drive]" from the ArcSoft laptop (Paragraph Four of Exhibit A), noting that "personal files" meant
28 everything in the "personal" folder he stored on the ArcSoft laptop. Friedman explained that the

1 items in this folder included such things as pictures of his children and links to websites he had
2 visited, but also included items Friedman described as "personal but work related," such as his
3 ArcSoft employment letter, correspondence between himself and ArcSoft, and "several" other
4 items which referenced ArcSoft by name but which he claimed he could not recall.

5 21. Friedman also explained his statement that he "emptied the 'recycle bin'" of the
6 ArcSoft laptop, noting that this recycle bin would have contained ArcSoft data that had
7 previously been stored in a location on the laptop's hard drive other than the "personal" folder
8 Friedman created.

9 22. Friedman also explained his statement that he "downloaded [G]oogle desktop
10 search to see if it could enable [him] to print the file names" of the files on the External Hard
11 Drive (Paragraph 3 of Exhibit A). Specifically, Friedman stated that since a user needs to access
12 the Internet to download the Google Desktop program, it cannot be downloaded to an external
13 hard drive that is not connected to a computer. I construed this to mean that Friedman had either
14 connected the External Hard Drive to a computer in his possession in order to apply this program
15 to the files on the External Hard Drive, or that he has a second copy of the files which are now on
16 the External Hard Drive saved to some other Electronic Storage Device which to my knowledge
17 he has not identified or produced for forensic imaging. The same is true for Friedman's statement
18 that he "attempted to find a way to list the file (sic) on the disk using the print screen and the
19 search capabilities of windows" (Paragraph 3 of Exhibit A).

20 23. Friedman also stated that certain files were not copied from the ArcSoft laptop
21 before he returned it. However, Friedman stated that he was unable to remember the names of
22 any such files.

23 24. In Exhibit A hereto, Friedman states that he "defragmented the drive" of the laptop
24 computer he returned to ArcSoft (he also stated during our meeting that he defragmented the hard
25 drive of the ArcSoft laptop using the standard Microsoft Windows utility). Defragmentation is a
26 process whereby a user can reorganize the contents of a computer hard drive to store pieces of
27 files in contiguous order. Because one purpose of defragmentation is to move and reorganize
28 files on a hard drive (thus increasing the speed with which files can be accessed), defragmentation

1 often causes data in unallocated space to be overwritten and unrecoverable. For this reason, in
2 my opinion, a computer user who has been instructed to preserve electronic data should not
3 engage in defragmentation, and a computer scientist (and many lay persons) would know not to
4 do so.

5 25. The process of defragmentation would not have caused the ArcSoft laptop to
6 become “zeroed out,” as set forth in the Declaration of Lee Curtis previously submitted to the
7 Court by ArcSoft. It is also not consistent with a computer not booting up and reading “disk
8 error.” Finally, I cannot think of a reason why Friedman would use a defragmentation process on
9 a computer of his former employer that he claims he intended to return. My understanding is that
10 Friedman claims to have kept the ArcSoft laptop during the period in question to remove files he
11 deemed to be personal. He has admitted to backing up files that were not solely personal, and
12 deleting others. But in any event, it is unexplained why he would then intentionally defragment
13 the laptop before returning it to ArcSoft since, based on his background, he knew or should have
14 known that this process would destroy evidence on the laptop. The most logical explanation
15 would be that he wanted to destroy evidence on the computer. In addition, and as I explained
16 above, it is clear that additional methods were used to zero out the laptop other than simply
17 defragmenting it.

18 **Copying Of Friedman’s Personal Email Account**

19 26. After forensically imaging the External Hard Drive and Flash Drives, and after
20 Friedman stated that he maintained only one personal email account, I asked Friedman for the
21 address, login name, and password associated with his personal email address. After receiving
22 this information, I logged into this account and proceeded to begin copying its contents. While I
23 was doing so, Friedman informed me that he did not want anyone to be able to access this email
24 account following our meeting.

25 27. Upon accessing this email account, I observed that it contained more than five
26 thousand (5,000) stored email files. Due to the manner in which emails are stored in Yahoo! Beta
27 email accounts such as Friedman’s, it is not possible to capture a single, complete image of the
28 contents of the email account. Instead, to image the contents of the account, it is necessary to

1 take one or more print screen images of each email communication within the account, which
2 requires opening each email one at a time. Each print screen would then need to be copied to a
3 Word document in series, which would probably require about three print screens per email.
4 Since I was first given access to this email account at approximately 10:45 p.m. on Monday, July
5 9, 2007, and in light of the number of emails within the account, I concluded that it would be
6 impossible to create an image of each email communication within the account even if I worked
7 throughout the night. Accordingly, and since I had already been imaging devices for more than
8 four hours, I requested that we adjourn for the evening.

9 28. After being informed of my request, Friedman stated that he wanted all imaging
10 completed that night. Despite repeated attempts to convince him that this was not possible even if
11 I worked throughout the night, Friedman would not agree to continue the imaging of his email
12 account on Tuesday, July 10, 2007, nor would he confirm whether he would meet with ArcSoft's
13 counsel and I on Tuesday, July 10, 2007 to produce the additional ESDs that he had not yet
14 fulfilled his Court-ordered obligation to produce. Thereafter, ArcSoft's counsel informed
15 Friedman that, notwithstanding his refusal to provide this confirmation, ArcSoft expected him to
16 appear at its counsel's offices at 7:00 p.m. on July 10, 2007 with the remainder of the ESDs that
17 needed to be imaged pursuant to the Court Order, and to allow for further imaging of Friedman's
18 email account.

19 29. At one point during our meeting, as the forensic imaging of the External Hard
20 Drive was being accomplished, I observed Friedman lean forward toward ArcSoft's counsel, who
21 was sitting across the table from him (and next to me). I then noticed that Friedman was staring
22 intently at the window behind ArcSoft's counsel, which, since it was nighttime, was acting as a
23 mirror, thus enabling Friedman to see what was on the screen of the computer ArcSoft's counsel
24 was using. It thus appeared to me, based on the fact that Friedman was leaning forward and
25 staring at the window, that he was trying to read what ArcSoft's counsel was typing. This
26 surprised me, since he had previously been informed that he would not be provided with a copy
27 of any notes taken by ArcSoft's counsel during the meeting, since such notes are protected from
28 the disclosure by the attorney-client privilege and attorney work product doctrine. To prevent

1 Friedman from succeeding in his apparent attempts to read ArcSoft's counsel's privileged notes, I
 2 closed the blinds on the window behind ArcSoft's counsel so that Friedman could no longer see
 3 her computer screen.

4 July 10, 2007

5 30. At approximately 7:15 p.m. on July 10, 2007, I was present at the offices of
 6 ArcSoft's counsel when ArcSoft's counsel called Friedman.

7 31. Friedman stated during this telephone call that he would not attend the meeting
 8 that had been scheduled for 7:00 p.m. that day. After being asked whether he would produce the
 9 "family laptop" and other Electronic Storage Devices he had identified the prior evening to Paul
 10 Hastings so that I could image them, Friedman stated that he "would not attend the meeting" (or
 11 words to the effect) and that he "would not answer any additional questions." When asked
 12 whether he would provide any certifications under penalty of perjury as required by the Court
 13 Order, Friedman stated that he had already provided a statement. ArcSoft's counsel then
 14 reminded him that this statement was not under penalty of perjury and did not contain all
 15 information required by the Court Order. However, Friedman responded that he had already
 16 provided one statement and would not provide any other statements.

17 32. When asked whether there were any other ESDs he would produce to me for
 18 imaging, Friedman first claimed incorrectly that I had been unable to image any of the ESDs that
 19 he had produced the prior evening. After being reminded that I had successfully imaged the
 20 External Hard Drive and the Flash Drives (i.e. all of the devices he brought to the meeting), and
 21 that I had begun the process of imaging his voluminous emails, Friedman then claimed that
 22 ArcSoft had refused to do any further imaging of his email account. ArcSoft's counsel again
 23 corrected him, and asked whether Friedman would grant me access to his email account in his
 24 absence (since he would not agree to meet with me again). Friedman equivocated but then finally
 25 agreed to allow me access as needed in the future.

26 33. When asked again whether there was any other ESD Friedman would be willing to
 27 produce, Friedman stated it would be impossible to bring all ESDs called for by the Order. When
 28 asked again if he would bring the "family laptop," or if there was any other identified ESD he

1 would bring to ArcSoft's counsel's offices, Friedman did not respond and later confirmed that he
2 was refusing to answer these questions.

3 34. ArcSoft's counsel then informed Friedman that he was in violation of the Court
4 Order since he had not produced all ESDs and had not provided the certifications under penalty of
5 perjury that are called for by the Order. ArcSoft's counsel then stated, "I will ask you one more
6 time, Mr. Friedman: will you bring anything else that the Court Order requires you to bring?"
7 Again, Friedman stated that he was refusing to answer this question.

8 35. ArcSoft's counsel then asked whether there was anything else that Friedman
9 would discuss relating to his compliance with the Court Order. Friedman stated there was, and
10 then asked for a response to his request that ArcSoft provide the cellular phone he had used while
11 at ArcSoft and a severance payment to him. ArcSoft's counsel did not answer this question.

12 I declare under penalty of perjury under the laws of the United States that the foregoing is
13 true and correct. Executed on this 12th day of July, 2007, in Palo Alto, California.

14 
15 Michael Boggess

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EXHIBIT A

case no. c07-03512 sc

9 july 2007

to whom it may concern:

here are my novice, good faith responses to the documents i have received:

(1) i will not access, use or disclose any arcsoft information, except as permitted or required by law

(2) i am delivering the hard disk with requested files to arcsoft's attorney monday, 9 jul 07, at 6:00 pm

(3) i attempted to find a way to list the file (hundreds? thousands?) on the disk using the print screen and the search capabilities of windows, but was unable to do so. i also downloaded google desktop search to see if it could enable me to print the file names, but it did not find all of the files. i am concerned that any attempt i make to list the files might be incomplete and am submitting that the computer's file explorer will provide the best, most accurate and complete list of the files

(4) pc was working fine when i returned it, except for its known unreliability problems. i did not use any wiping program. i backed up personal files to the submitted hard drive. i backed up outlook. i also backed up the files on the 'desktop' to the drive. i erased the personal files on the pc, emptied the 'recycle bin' and defragmented the drive

(5)

- family laptop. No arcsoft material
- e-mail account at sbc-yahoo. may contain some old arcsoft information
- various memory cards in consumer electronic devices. no arcsoft material
- usb 'thumb' drives. contain back-ups of e-mail correspondence with arcsoft
- usb hard drive. contains personal files, files from the 'desktop', files from outlook
- some of the files were 'rejected' by the file copy program, so a very limited number of files might not have been copied

(6) i did not give anyone access to any arcsoft property or files

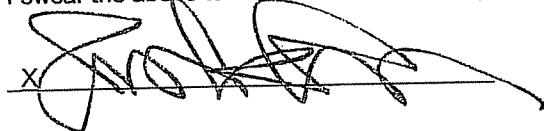
please note that my responses are:

- to the best of my knowledge
- without the benefit of an attorney
- after unsuccessfully seeking to find an attorney since receiving the initial docs friday evening
- after unsuccessfully requesting the courtesy of a short delay from acrsoft's attorneys
- including personal files that i interpret to be part of the requested information, but do not believe are relevant to the matter. if they, or any other items i provide, are outside the scope of the court's directives, i request that the information not be accessed

regards,

paul Friedman

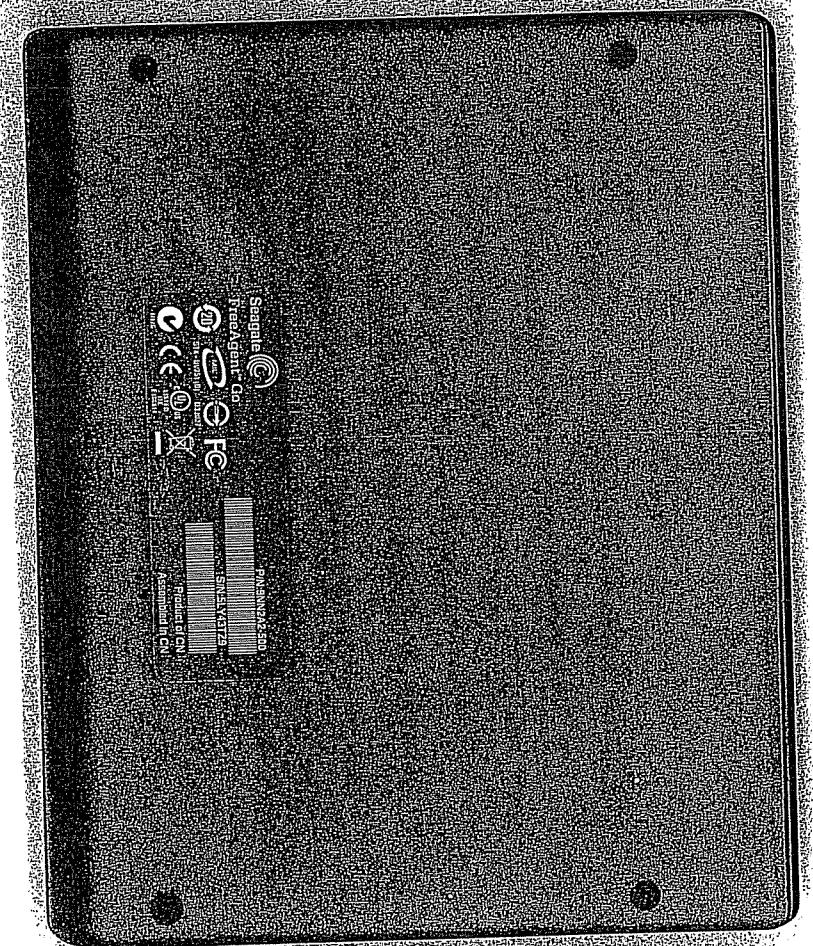
I swear the above to be true to the best of my knowledge.



9 JUL 07

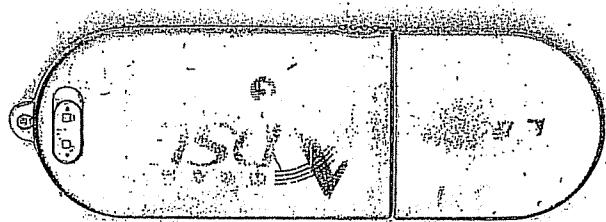
EXHIBIT B

Paul Hastings



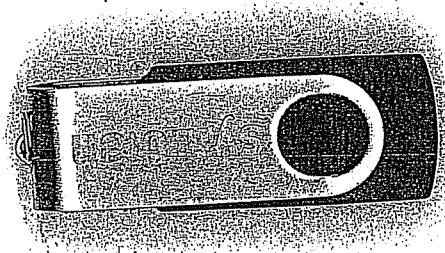
Paul Hastings

2



Paul Hastings

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Paul Hastings

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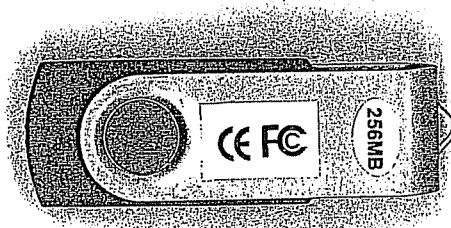


EXHIBIT C

ELECTRONIC STORAGE DEVICES

I, Paul Friedman, state under penalty of perjury according to the laws of the United States that the following is a list of all Electronic Storage Devices (including but not limited to home computers, thumb drives, compact discs or DVDs, hard drives, private email accounts (including Internet-based email accounts), and other media capable of storing electronic data) in my possession, custody and control and/or to which I have had access from January 1, 2007 to the present:

To the best of my recollection
I certify that the above is true, correct and complete. Executed this 9 day of July, 2007, in
Palo Alto, California.


Ronald Friedman

FOUND 2 L. MEM COED DEVICES, INC COMING
3 IPODS, 4 CELL PHONES, REMOTES, HAN'S
POINTED, 1 REMOTE AT 2ND RESIDENCE,
INTEGRATED PC, HP PC, DVD PLAYERS;
DVDS, CDS, VIDEO TAPES, GAME PLAYERS,
GAMES, NOT AS PCS, OR MASS,
FLASH DRIVES, 3 FLASH DRIVES, TOVEE

KIDS MIGHT BE USING VARIOUS DRIVERS, DOWNLOADS
OF VARIOUS MODEL MOBILES & CONS. ETC
DEVICES AT, RESET & COMPUTERS, NETWORK
PRINTERS, ^{AN} ETC